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10/814,679

03/31/2004

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27128 7590 04/10/2008  
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EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/814,679 | <b>Applicant(s)</b><br>HOOD ET AL. |  |
|                              | <b>Examiner</b><br>Elizabeth M. Cole | <b>Art Unit</b><br>1794            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-47 is/are pending in the application.
- 4a) Of the above claim(s) 16-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 34-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. In view of the Appeal Brief filed on 1/30/08, PROSECUTION IS HEREBY REOPENED. Rather than refer to the previous action, all rejections are set forth below in their entirety in order to clarify the grounds of rejection, since the appeal brief noted that the action contained incorrect paragraph numbers when referring to previous actions. The action intended to refer back to the final rejection dated 6/15/06. Since the brief indicates that the grounds of rejection are not clear, they are set forth below in their entirety. It is further noted that the brief filed 1/30/08 was defective. Applicant must include a separate heading and arguments for each ground of rejection appealed. Further, non-appealable issues should not be included. This information is included to aid Applicant in preparing a future appeal brief if option 2 set forth below is selected.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not provide support for the limitation that the core and the terminal part are formed “therethrough” of a first polymer material. . The appeal brief filed 1/30/08 points to page 3, lines 7-17 and page 6, lines 23-30 and page 7, lines 1-13 as providing support for this limitation. However, page 3, lines 7-17 states that the “invention provides a three dimensional, unitary molded, multi-polymeric article comprising a generally planar two -dimensional base section formed from one polymer material and a plurality of projecting elements extending from one side of the base section, wherein at least some of the terminal parts of the projecting elements are formed from a second polymer material. In a preferred embodiment, the base section of the article is formed from one polymer material, terminal parts of at least some of the projecting elements are formed from another polymeric material and the base section of projecting elements are formed from a mixture of two polymeric material. In many cases the base section of the projecting elements will have one polymer material at its surface and another polymeric material at its core.” Thus, the specification at page 3, lines 7-17 provide support for a limitation that the core comprises a first polymer and the surface comprises a second

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polymer and provides support for the limitation that the terminal portion are formed from a second polymer relative to the base section and that the base section of the projecting parts are a mixture of the two polymers. However, page 3, lines 7-17 does not provide support for the invention as now claimed, specifically, page 3, lines 7-17 do not provide support for the "therethrough" limitation. Page 6, line 23 -page 7, line 13, states: "In the method for forming three-dimensional, multi-polymer articles, a first polymer is first supplied from a first set of two sets of circumferentially aligned, cavity injection ports to a cavity area in a mold drum 20 (shown in figure 5) rotating in arcuate proximity with the first set of ports to form in the cavities base section proximate parts 2 of projection elements. A different polymer is then supplied from a second set of said two sets of circumferentially aligned, cavity injection ports to said cavity area rotating past said first if portion port into proximity with said second set of ports to form in said cavities terminal parts of said projection elements. The first polymer is supplied at a relatively low pressure so as to fill only the part of the cavity proximate solidifying at the mold wall and remaining generally molten in the core. The second polymer is supplied at a relatively high pressure to flow through the generally molten core to the terminal parts of the cavity. Some of the molten first polymer that is advanced toward the terminal end and the final projecting elements generally have a different polymer core with a first polymer surface at the base section 2 and a second polymer surface at the terminal ends 3. Accordingly, the cross section of the base section 2 is large enough to provide an essentially solid mold wall and a generally molten polymer core. One skilled in the art may determine the dimensions of the cross section of the base section 2 without undue

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experimentation depending on the specific polymers used. For example the molten core may comprise one half of the total cross-section of the base section 2.” However, pages 6-7 as quoted above do not provide support for the structure as claimed.

Specifically, they do not provide support for the “therethrough” limitation. Further, original claim 6 provides support for a structure wherein said terminal parts of at least some of said projecting elements are formed from a second polymer material and said base section of said projecting elements having a first polymeric material at its surface a second polymeric material at its core. Original claim 6 provides support for the limitation of the core and the surface at the base section of the projecting element wherein the core is formed of a second polymer and wherein the terminal part is formed of a second polymer, but it does not provide support for the limitation the terminal part is formed “therethrough” of the second polymer. The term “therethrough” indicates that the terminal part is formed throughout from the second polymer. Support for that concept is not found in the specification or original claims.

3. Claims 34-39, 41-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis, U.S. Patent No. 3,312,583. Rochlis discloses an integral, unitary, molded article formed from a thermoplastic polymer, (col. 1, lines 12-27), such as a vinyl polymer, (col. 12, lines 19-40), which comprises a base structure and a plurality of projecting elements. The projecting elements can be formed so that they have different colors, which meets the limitation of the projecting elements being made from different polymers, or the elements may differ in their hardness or other characteristics, (see col. 1, line 65 - col. 2, line 7; col. 0, lines 61 – col. 10, line 24). The base sheet can be

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solid or porous. See col. 7, lines 45-59. The polymer material comprises pigments to determine the different colors of the projections. The base sheet can be combined with other layers (col.12, lines 41-60), including slip resistant layers, (col. 6, lines 43-46).

The finished material can be used in a variety of ways, including as a “zipper” fastener, (i.e., hook and loop type fasteners). See col. 11, lines 43-46. The base sheet can be a different color than the projections. See col. 10, lines 53- 63.

4. Claims 1-5, 7, 9-13, 15, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis, U.S. Patent No. 3,312,583 in view of Akeno et al, U.S. Patent No. 5,657,517. Rochlis discloses an integral, unitary, molded article formed from a thermoplastic polymer, (col. 1, lines 12-27), such as a vinyl polymer, (col. 12, lines 19-40), which comprises a base structure and a plurality of projecting elements. The projecting elements can be formed so that they have different colors, which meets the limitation of the projecting elements being made from different polymers, or the elements may different in their hardness or other characteristics, (see col. 1, line 65 - col. 2, line 7; col. 0, lines 61 – col. 10, line 24). The base sheet can be solid or porous. See col. 7, lines 45-59. The polymer material comprises pigments to determine the different colors of the projections. The base sheet can be combined with other layers (col.12, lines 41-60), including slip resistant layers, (col. 6, lines 43-46). The finished material can be used in a variety of ways, including as a “zipper” fastener, (i.e., hook and loop type fasteners). See col. 11, lines 43-46. The base sheet can be a different color than the projections. See col. 10, lines 53- 63. Rochlis differs from the claimed invention because Rochlis does not the claimed structure of the projecting

elements, wherein the portion of the projecting elements near the base layer comprise a core and a surface portion and the projecting elements further comprise a terminal portion, wherein the core and the terminal portion are made of one polymer and the surface portion is made of another polymer. Akeno discloses a reinforced molded structure of projecting elements suitable for use in fasteners, comprising a projecting element having a portion near the base layer and a terminal portion and a plurality of reinforcing ribs formed on the surface of the projecting element near the base layer. See figures. The reinforcing elements correspond to the claimed surface portion. The projecting element which extends from the base to the terminal portion corresponds to the claimed core and terminal portions. It would have been obvious to have formed the projecting elements of Rochlis so that they had the structure of the projecting elements of Akeno, in order to form a material wherein the hook fasteners are reinforced. It further would have been obvious to have employed different polymers, which differed in color, hardness, etc., as taught in Rochlis, in order to form a material which had an improved appearance, strength, etc.

5. Claims 8, 40, 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis in view of Akeno as applied to claims above, and further in view of Clune, U.S. Patent NO. 6,162,040. Rochlis differs from the claimed invention because while Rochlis teaches employing thermoplastic polymers to form the molded article, it does not teach employing polyolefins or polyethylene specifically. Further, Rochlis does not specify the inclusion of metal oxides as a component in the polymer. However, with regard to the metal oxides, since Rochlis does teach including pigments and since



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titanium dioxide is a conventional and well known white pigment, (Rochlis teaches forming some of the projections so that they are white), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed titanium dioxide as a pigment to color some of the projections white in Rochlis, based upon the well known and conventional use of titanium dioxide as a white pigment. With regard to the use of other polymers such as polyethylene to form the projections, Rochlis teaches employing thermoplastic polymers generally, and specifically refers to vinyl polymers. Clune teaches that additional thermoplastic polymers which are suitable for forming molded fastener elements include polyethylene and polypropylene. See col. 5, lines 35-44. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed polyethylene and polypropylene as the thermoplastic polymers in Rochlis, in view of the teaching of Clune that such polymers were recognized in the art as suitable for this purpose. With regard to the particular density of the polyolefins, the person of ordinary skill in the art would have been able to select the polymers which produced projecting elements having the desired properties such as flexibility, hardness, resilience, etc., through the process of routine experimentation, in order to form a material having the optimum and desired properties.

6. Claim 1, 3, 5, 7, 8, 10-12, 34-40, 42-44 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sallee, U.S. Patent No. 5,976,643. Sallee discloses a base sheet material with a plurality of garnishes projecting therefrom (Figure 1). The base material is constructed of a rigid

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plastic backing (column 4, lines 1-7) and the garnishes are also formed from plastic material (column 3, lines 58- 67). The garnishes meet the claimed limitations for the projecting element portions because the polymer that forms the terminal part of the garnish is also present in the core of the base section, which is made from a different polymer (see Figures 5-7). The base section meets the limitations of the surface of the lower part of the projecting element. With regard to claims 3 and 11, the base sheet must contain at least one pigment that is different from one of the projecting elements since the base sheet is formed of multiple colors (column 4, line 1). With regard to claim 5, the retaining ring is preferably Derlin (column 6, line 21), which is a thermoplastic acetal. With regard to claim 7, various colors are used to create a camouflaged appearance (column 5, lines 20-21). With regard to claim 8, the garnish is made from polyethylene (column 3, line 60). With regard to claim 10, the base sheet has holes (Figure 1). With regard to claim 12, the base material is also camouflaged (column 4, line 1). With regard to claim 15, a plurality of projecting elements is present (Figure 1).

7. With regard to claims 34 and 35, the garnishes would comprise at least a first plurality of projecting elements and a second plurality of projecting elements because each set may be colored differently to effect a camouflaged pattern (column 5, lines 11-21). With regard to claims 36, 37, 43, and 44, the base sheet must contain at least one pigment that is different from one of the projecting elements since the base sheet is formed of multiple colors (column 4, line 1). With regard to claims 38 and 40, Sallee discloses the garnishes are made from polyethylene (column 3, line 60).

With regard to the limitation that the planar portion and the projecting portion are integrally molded, Sallee teaches that the attachment of the projecting portion to the base portion may be "permanent". See col. 5, lines 30-45. A structure which is permanently bonded is an integral structure. With regard to the limitation that the structure is molded, a molded structure is one which is produced by a molding process. Sallee does not teach a molding process but teaches the claimed integral structure. The instant claims are drawn to a product and not to how the product is made. "The patentability of a product does not depend on its method of production. If the product in the product - by - process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983).

The use of 35 USC 102/103 rejections for product by process claim has been approved by the courts. "[T]he lack of physical description in a product - by - process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably

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appears to be either identical with or only slightly different than a product claimed in a product - by - process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown , 173 USPQ 685, 688 (CCPA 1972).

Therefore, in the instant case, the burden is on the Applicant to show that the claimed process produces an unobvious difference between the claimed product and the prior art product.

13. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sallee. With regard to claims 2 and 4, Sallee does not disclose what color the retaining collar, which comprises the claimed wall of the projecting element, might be. Sallee does disclose that the material is multi-colored though (column 5, lines 11-21 ). It would have been obvious to a person having ordinary skill in the art to use two distinct pigments for the retaining collar and the tufts, since the tufts form a camouflaged pattern and making retaining rings with the exact same color for each tuft would create an unnecessary and great expense because the retaining rings are not disclosed as contributing to the camouflaged pattern.

Sallee does not disclose the use of a slip resistant sheet. Nesbitt teaches that a camouflage material can be backed by a magnetic sheet, which allows the material to be securely fastened to a vehicle without slipping (Abstract). It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide

a slip resistant sheet to Sallee in order to allow the camouflage material to be fastened to a vehicle, as taught by Nesbitt.

15. Claims 13 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sallee in view of Rawlinson (U.S. Patent No. 4,329,196).

Sallee does not disclose what density the polyethylene material should be.

Rawlinson teaches that grass-like material made from polyethylene should have a density between 0.90 and 0.93 (column 3, lines 8-10). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a polyethylene with a density between 0.915 and 0.92 in the garnish of Sallee, since such' range is embraced by the art as being known and it has been held to been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). t

16. Claims 14 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sallee in view of Sesselmann (U.S. Patent No. 5,790,987).

Sallee teaches the material may be used on a person (Abstract), but does not disclose the use of filler. Sesselmann teaches that alumina may be added to camouflage material to help reduce odor (column 2, lines 5-27). It would have been obvious to a person having ordinary skill in the art at the time of the invention to include alumina in the material of Sallee in order to reduce odor, as taught by Sesselmann.

8. Applicant's arguments filed 1/30/08 have been fully considered but they are not persuasive.

9. Applicant's summary of law and the references at pages 13-22 of the a[ea; brief is noted.

10. With regard to the previous rejections, as stated above, in order to clarify the rejections, each rejection has been written out in its entirety rather than referring to previous actions. Additionally, Applicant is correct that claim 47 was inadvertently included in the claims lists for two rejections after it had been cancelled. This error has been corrected.

11. With regard to the rejections of claim 1, Applicant argues that this claim is a product claim, and that "integrally molded thermoplastic structure" is a structural term and that claims 1 and 34 are not product by process claims. However, a claim which includes a limitation such as molded, ( or the other examples Applicant has provided such as laminate, woven, bonded, etc.) , is considered in its entirety, like any claim, in order to determine the scope of the claim. In this case, the recitation is that the structure is molded. This is, as Applicant points out, both a process limitation, in that it states how the structure is made, (by molding), and also a structural limitation, in that it is reciting that the structure is molded, (and also, integral in this case). However, the issue is whether the product which is described as being formed by molding is different than a product which is described as being formed by another method, such as ultrasonic bonding, lamination etc. Applicant's citation of the word "laminate" is applicable to this situation. A structure comprising two layers which is described as a

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laminate could be formed by a lamination process, (i.e., heat and pressure). The same structure could also be formed, however, by another process such as coextrusion, flame lamination, solvent bonding, etc. In that case, even where the product was described as a laminate, but the prior art product was formed by, for example, coextrusion, since the resulting structure would apparently be the same, the art would anticipate the claim. The instant application is similar. Here, the claims recite integrally molded. The prior art products are not formed by integrally molding. However, the prior art products are permanently bonded entities, which appear to have the same structure as an article which is integrally molded. Thus, while the process by which the article is formed is different, the resulting product appears to be the same. Additionally, there is nothing on the record to distinguish the difference between an article wherein two elements are permanently united, such as by ultrasonic welding or other permanent known means, and a molded product. Assuming the materials are the same, which is the case between the instant claims and the prior art references, it does not appear that there would be a structural difference between a molded article and an otherwise identical article wherein the two elements were united by another means. Since the instant claims are process claims, the burden is on the applicant to show that the process difference results in an unobvious difference between the prior art products and the claimed products. The situation with a claim which recited "woven" is somewhat different, since a structure which is formed by weaving will be definition have a structure which is different than a structure which is formed by knitting, or uniting fibers by needlepunching or other mechanical means. Therefore, while Applicant argues that

“integrally molded thermoplastic” is an adjective which defines the claimed “structure”, the issue is what structure is imparted by these terms which would not be there if they were formed by another process. Molding is a means for forming, shaping or uniting elements. It is different than weaving in that other processes can be used to form, shape or unit elements and produce a structurally seemingly identical material, which is not the case with weaving. Further, there is nothing on the record showing that there is a structural difference between the molded articles and the claimed articles in terms of the finished structure and therefore, the rejections are maintained as set forth above.

12. Applicant points to various applications which the examiner has examined. It is respectfully noted that each case is considered on its facts. Further, the examiner is not taking the position that process limitations are improper in article claims, or that process limitations are not considered, or that the term molded is somehow indefinite. Rather, the examiner is interpreting the phrase “integrally molded thermoplastic structure” as set forth immediately above. Therefore, it is not clear what relevance other patents examined by the examiner have on this case.

13. With regard to Sallee, Applicant argues that there is nothing in Sallee which teaches a molded structure. However, Sallee teaches that the attachment of the projecting portion to the base portion may be “permanent”. See col. 5, lines 30-45. A structure which is permanently bonded would be an integral structure and there is nothing on the record which would structurally distinguish such a permanently bonded integral structure from a molded integral structure. Applicant states that Sallee is teaching that the parts can be both permanent and removable. However, the examiner



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does not interpret the teaching of Sallee as being that the parts should be both permanently attached and removable, but rather that the parts can either be permanently attached or removable. Therefore, the rejection is maintained.

14. Applicant's arguments with regard to Zuiddam, Matsui, Valyi and Fukuda are persuasive. Those rejections are withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794

e.m.c.

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